9.

Notes on Tschudi's Types of Peruvian Birds.

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A little over a century ago, J. J. von Tschudi, the earliest important ornithological explorer of Peru, made a sizable collection of birds in that country. Among these specimens he found and described a large number of new forms, most of which are considered valid today. His collection went to the Museum of Neuchatel, Switzerland, from which institution, in 1866, the United States National Museum received 27 specimens of birds, mostly mounted—the con-signment being marked "Types of Tschudi's Fauna Peruana." We have recently rediscovered these birds scattered through the collections and have made use of the occasion to go over them carefully.

We find that most of them must be regarded as types, or at least as cotypes. Tschudi described his new forms in the Archiv für Naturgeschichte, 1843 and 1844, and in his "Untersuchungen über die Fauna Peruana," 1844-46. In no case did he designate a definite specimen as the type or even intimate whether he had one or more specimens before him, or state an explicit, restricted, type locality. Inasmuch as his descriptions were all written after his collecting work was complete, it is reasonable to assume that all his birds were available to him at the time of his studies and that, therefore, in the absence of true holotypes, all of his paratypes (which would include all of his original series) must be considered as cotypes, except where the description, for one reason or another, does not fit a particular specimen.

Berlepsch & Hellmayr (Journ. für Orn., 1905, pp. 6–20) reported on Tschudi's types in the museum at Neuchatel, apparently unaware of the fact that a considerable number of specimens had been sent away many years before. In fact, they merely discussed the Tschudi types they found at Neuchatel and made no comment on the forms described by Tschudi but no longer to be found there. The birds now in the United States National Museum fill in a good number of these omissions as well as revealing a number of cotypes of the forms still repre-

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sented (in 1905) in Neuchatel. The specimens now in Washington, which we consider to be of type or cotype status, are listed below. Our specimens of forms which Berlepsch & Hellmayr found to be represented (by "type"—only three!) at Neuchatel in 1905 are considered cotypes; those which they failed to find at Neuchatel are, in lieu of other known specimens, considered to be types. If other specimens should be found in other museums, some of the types herein listed would, of course, become cotypes.

Penelope adspersa Tschudi = Ortalis guttata adspersa (Tschudi).

Archiv für Naturgeschichte, ix, (1), 1843, 386 (Peru, "frequenter in sylvis"; = eastern Peru).

Type: U. S. Nat. Mus. 41932; Perou. Chapman (*Bull.* 117, U. S. Nat. Mus., 1921, 44) writes that two males from Rio Cosireni have the throat and breast darker with the margins of the feathers whiter and more clearly defined than in examples from southeastern Colombia; and that, if the difference should prove to be constant, they should be known as O. g. adspersus. One of these Rio Cosireni birds is before us and agrees quite well with the unsexed type, except in having the upperparts more olive, less reddish-brown, and in being larger. The measurements of the two are as follows: type, unsexed, wing 185, tail 206, culmen from base 21 mm; Rio Cosireni, 3, wing 203, tail 211, culmen from base 24 mm.

The type has the entire underparts slightly more brownish than the Rio Cosireni example, but its general brownishness may be partly due to foxing.

Charadrius Winterfeldi Tschudi = Aphriza virgata (Gmelin).

Archiv für Naturgeschichte, ix, 1843, 388 ("in Oceani Magni littoribus").

Type: U. S. Nat. Mus. 41933; original label lost, but locality entered in catalogue in 1866 as Valparaiso.

That Valparaiso, Chile, may be the actual type locality is not to be ruled out of consideration, as in his "Travels in Peru, During the Years 1838-1842" (transl. by Thomasina Ross, 1849, p. 25), Tschudi describes birds seen for sale and at large in the harbor of Valparaiso on his way north to Peru, and he may have obtained his specimen of the surf bird there. The type is a bird in winter plumage and has the following dimensions: wing 162, tail 58, culmen from the base 26 mm.

Columba frenata Tschudi =

Oreopeleia bourcieri frenata (Tschudi).

Archiv für Naturgeschichte, ix, (1), 1843, 386 ("in sylvis Antium declivitatis orientalis," Peiu = eastern slopes of the Andes of Peru).

Type: U. S. Nat. Mus. 41931, unsexed; Perou; Wing 160.5, tail 94.5, culmen from base 21 mm.

The type is somewhat foxed. It has been compared with a male from Rio San Miguel, Peru, from which it differs in being more rufescent above, the rump and tail lighter and brighter, and in having the breast paler, much less grayish, more of a pale cinnamon drab and the sides, flanks, and under tail coverts much more rufescent. In his description of O. b. subgrisea, Chapman (Amer. $\hat{M}us.$ Novit. no. 31, 1922, p. 2) re-fers to the underparts of his new form, "... as in O. frenata, the breast pale drabgray instead of cinnamon-drab or drab; center of abdomen slightly paler than breast, pale smoke-gray rather than drab as in most specimens of bourcieri; lower tailcoverts grayer." This is rather confusing, as the type of *frenata* is the brownest of all on the underparts. The Rio San Miguel bird, which was identified as frenata by Chapman (Bull. 117 U. S. Nat. Mus., 1921, p. 47) is intermediate between typical bourcieri (from El Roble and Almaguer, Colombia, and Zaruma, Ecuador) and the type of frenata. We have seen no specimens of subgrisea and can only call attention to the possibility of its range extending southward to northern Peru, making the Rio San Miguel specimen within its limits of variation, or the possibility of northern Peru and southwestern Ecuador being inhabited by variable intergrades between typical bourcieri and frenata, not constant enough to warrant nomenclatural standing.

Columba meloda Tschudi =

Zenaida asiatica meloda (Tschudi).

Archiv für Naturgeschichte, ix, (1), 1843, 385 ("frequenter in regionibus calidis praecipue declivitatis Antium occidentalis" = western slopes of the Andes in Peru).

Type: U. S. Nat. Mus. 41930, unsexed; Perou; wing 177, tail 125, culmen from base 27.5 mm.

Conurus mitratus Tschudi =

Aratinga mitrata mitrata (Tschudi).

Archiv für Naturgeschichte, x, (1), 1844, 304 (Peru=Chanchamayo Valley; Zimmer, Field Mus. Nat. Hist. Publ. Zool., ser. xvii, 1930, 263).

Type: U. S. Nat. Mus. 41926, unsexed; Perou; wing 189, tail 151, culmen from cere 31.5 mm.

Conurus rupicola Tschudi = Pyrrhura rupicola (Tschudi).

Archiv für Naturgeschichte, x, (1), 1844, 304 (Peru).

Cotype: U. S. Nat. Mus. 41925, dismounted specimen, unsexed; "Perou"; wing 133, tail 100+, culmen from cere 16 mm.

Another cotype is in the British Museum (Cat. Birds Brit. Mus., xx, 1891, 225).

In his account of his journey, Tschudi (Travels in Peru, transl. by Thomasina Ross, 1849, p. 176) states that he found this bird together with the next one, abounding in the coastal region south of Lima, which may be taken as a more restricted type locality. The pose of the present (dismounted) specimen agrees with that in the figure of Tschudi's Untersuchungen Ueber die Fauna Peruana (Pl. 26, fig. 1).

Psittacus tumultuosus Tschudi = Pionus tumultuosus (Tschudi).

Archiv für Naturgeschichte, x, (1), 1844, 304 (Peru).

Type: U. S. Nat. Mus. 41927, dismounted bird, unsexed; Perou; wing 171, tail 79, culmen from cere 26 mm.

The type locality may be more definitely stated as the coastal region south of Lima, where Tschudi writes (Travels in Peru, transl. by Thomasina Ross, 1849, p. 176) he found this parrot to abound "... in the valleys along the coast," and to "... commit great depredations in the maize fields."

Psittacus mercenarius Tschudi =

Amazona mercenaria mercenaria (Tschudi).

Archiv für Naturgeschichte, x, (1), 1844, 303 (Peru).

Type: U. S. Nat. Mus. 41928, unsexed; Perou; wing 198, tail 93, culmen from cere 30 mm.

Caprimulgus ocellatus Tschudi = Nyctiphrynus ocellatus ocellatus (Tschudi).

Archiv für Naturgeschichte, x, (1), 1844, 268 (Peru).

Type: U. S. Nat. Mus. 41912, unsexed; Perou; wing 131.5, tail 122, culmen from base 20.5 mm.

Peters (Check-list Birds World, iv, 1940,

196) considers brunnescens Griscom & Greenway to need confirmation before recognizing it. We have a single Brazilian bird which by locality may be either brun*nescens* or *ocellatus* and find it to be duskier than the type of *ocellatus* as it should be according to Griscom & Greenway if it were brunnescens but otherwise it disagrees with their description, being brighter, more rufescent brown than *ocellatus*. These writers state that *brunnescens* has a general light chocolate brown coloration while ocellatus is bright rufous brown. The reverse is true of the two birds before us. The birds are of comparable antiquity, the Brazilian speci-men being from the U.S. Exploring Expedition's collection, so there should be no dif-ferential foxing. The validity of *brun*nescens is therefore very doubtful, as individual variation seems to be greater than was supposed.

Capito glaucogularis Tschudi = Capito versicolor glaucogularis (Tschudi).

Archiv für Naturgeschichte, x, (1), 1844, 301 (Peru).

Cotype: U. S. Nat. Mus. 41920, unsexed (female by plumage); Perou; wing 71.5, tail 81, culmen from base 22 mm.

While there seems to be no reason to consider this specimen as less likely a type than the others, it should be noted that in some details it agrees only approximately with the colored plate (plate 24, fig. 2 in Tschudi's Untersuchungen Ueber die Fauna Peruana). Thus, in the plate the crimson pectoral band extends entirely across the posterior end of the blue throat whereas in the specimen before us it is not quite so extensive; the green of the upperparts is lighter, slightly more yellowish in the bird than in the plate and the centers of the upper wing coverts not as dark as in the figure. The specimen, which is a "taken down" mounted specimen may, of course, have faded somewhat. It is also possible that the plate was made from another specimen, which is our reason for calling our bird a cotype.

A female of *versicolor* from Idma, Peru, is very similar to the type of *glaucogularis* and differs only in having the crown and occiput less yellowish and the yellow margin of the upper and posterior edges of the auricular area more distinct.

Chamaeza olivacea Tschudi = Chamaeza brevicauda olivacea Tschudi.

Archiv für Naturgeschichte, x, (1), 1844, 279 (Peru; restricted by Hellmayr, Cat. Birds Amer., iii, 1924, 293, to Montaña de Vitoc, Dept. Junin, Peru).

Type: U. S. Nat. Mus. 41916, unsexed,

dismounted bird; "Perou"; wing 96.5, tail 65.5, culmen from base 22.5 mm.

Anabates montanus Tschudi =

Anabacerthia striaticollis montanus (Tschudi).

Archiv für Naturgeschichte, x, (1), 1844, 295 (Peru; = wooded region of Peru, between 10° and 12° South Lat.).

Cotype: U. S. Nat. Mus. 41923, unsexed, dismounted bird; "Perou"; wing 90, tail 75, culmen from base 17 mm.

Other cotypes exist in Neuchatel, and in the British Museum (Sclater, *Proc. Zool. Soc. Lond.*, 1871, p. 86).

In identifying the specimen we follow the nomenclature of Bangs (*Bull. Mus. Comp. Zool.*, lxx, 1930, p. 252) rather than of Hellmayr (Cat. Birds Amer., iv, 1925, 195).

Anabates ochrolaemus Tschudi = Automolus ochrolaemus ochrolaemus (Tschudi).

Archiv für Naturgeschichte, x, (1), 1844, 295 (Peru = forest region of Peru, between 10° and 12° South Lat.).

Cotype: U. S. Nat. Mus. 41915, unsexed, dismounted bird; "Perou"; wing 83, tail 74, culmen from base 22 mm.

Other cotypes are in the British Museum and the Museum at Neuchatel.

Dendrocolaptes chunchotambo Tschudi = Xiphorhynchus chunchotambo chunchotambo (Tschudi).

Archiv für Naturgeschichte, x, (1), 1844, 295 (Peru = Chanchamayo Valley, Peru).

Cotype: U. S. Nat. Mus. 41918, unsexed, dismounted bird; "Perou"; wing 103, tail 90, culmen from base 35 mm.

Other cotypes exist in the Neuchatel and British Museums.

The present specimen has been discussed by Zimmer (Amer. Mus. Novit. no. 756, 1934, p. 17).

Elaenia viridiflava Tschudi =

Tyranniscus viridiflavus (Tschudi).

Archiv für Naturgeschichte, x, (1), 1844, 274 (Peru = "coast region of Peru," errore = tropical zone of central Peru).

Cotype: U. S. Nat. Mus. 41921, unsexed, dismounted bird; "Perou"; wing 58, tail 48.5, culmen from base 9.5 mm.

There is another cotype in the museum at Neuchatel (referred to as the type by Hellmayr, Cat. Birds Amer., v, 1927, p. 474).

This specimen is paler above, the feathers without the darker centers, when compared with Tschudi's colored figure (Untersuchungen Ueber die Fauna Peruana, pl. ix, fig. 2).

Leptopogon superciliaris Tschudi = Leptopogon superciliaris superciliaris Tschudi.

Archiv für Naturgeschichte, x, (1), 1844, 275 (Peru = fringes of the forests of central Peru,—Montaña of Vitoc, Dept. Junin, Hellmayr, Cat. Birds Amer., v, 1927, p. 485).

Type: U. S. Nat. Mus. 41917, unsexed, dismounted bird; "Perou"; wing 75, tail 63.5, culmen from base 14.5 mm.

Pipra chloromeros Tschudi = Pipra chloromeros Tschudi.

Archiv für Naturgeschichte, x, (1), 1844, 271 (Peru = montañas of "northwestern" Peru; = valley of Vitoc, Dept. Junin; Hellmayr, Cat. Birds Amer., v, 1927, 25).

Type: U. S. Nat. Mus. 41924, unsexed (adult male by plumage), dismounted bird; Perou; wing 59, tail 24, culmen from base 10.5 mm.

Cyphorhinus thoracicus Tschudi = Leucolepis thoracica thoracica (Tschudi).

Archiv für Naturgeschichte, x, (1), 1844, 282 (Peru=montañas of Uchubamba, near Vitoc, Dept. Junin).

Cotype: U. S. Nat. Mus. 41922, unsexed, dismounted bird; Perou; wing 68, tail 48, upper mandible broken.

This specimen is listed as a cotype rather than as a type because Hellmayr (Cat. Birds Amer., vii, 1934, p. 287) writes "(type in Neuchatel Museum)." Yet, Berlepsch & Hellmayr (*Journ. für Orn.*, 1905, 6–20), in their paper on the Tschudi types at Neuchatel, do not list this species.

Tschudi's colored figure (Untersuchungen Ueber die Fauna Peruana, 1846, pl. 16, fig. 1) is very poor. The type has the face, chin, throat, and breast much more rufescent and much brighter than the published figure.

Ptilogonys lencotis Tschudi =

Entomodestes lencotis (Tschudi).

Archiv für Naturgeschichte, x, (1), 1844, 270 (Peru).

Cotype: U. S. Nat. Mus. 41908, unsexed, dismounted bird; Perou; wing 106.5, tail 106, culmen from base 21 mm.

Baird (Rev. Amer. Birds, pt. 1, 1866, p. 432–433) has described this specimen in detail. He writes that the bird is one "... of Mr. Tschudi's types, presented to the [Smithsonian] Institution by the Museum of Neuchatel. It is moulting a considerable portion of its feathers, which somewhat obscures its characters, and it may even be a young bird not yet arrived at maturity." It does not seem probable that the specimen is immature. It apparently is an adult in moult, especially on the chin and sides of the head. Berlepsch & Hellmayr failed to find any "type" of this bird in Neuchatel in 1905, but Hellmayr (Cat. Birds Amer., vii, 1934, 445) writes "type in Neuchatel Museum."

Tanagra analis Tschudi =

Iridosornis analis analis (Tschudi).

Archiv für Naturgeschichte, x, (1), 1844, 287 (Peru = Valley of Vitoc, Dept. Junin; Hellmayr, Cat. Birds Amer., ix, 1936, 179, footnote).

Cotype: U. S. Nat. Mus. 41919, unsexed, dismounted bird; Perou; wing 82, tail 69, culmen from base 13 mm.

Another cotype exists in the British Museum (ex Sclater coll.) according to Sclater (Cat. Birds Brit. Mus., xi, 1886, p. 142). Hellmayr (Cat. Birds Amer., ix, 1936, p. 179) states "type in Neuchatel Museum, but in his earlier paper with Berlepsch, made no mention of this species among the Tschudi types still in that museum. Zimmer (*Field Mus. Nat. Hist., Zool. ser.*, xvii, 1920, 443) writes that the "type may have come from near Lima since Tschudi says ... the species was common in the fruit gardens of Lima, he did not find it further north or east . . ." However, Hellmayr (cit. supra) writes (from subsequent knowledge of the range of the bird) that Tschudi's statement is a mistake, and suggests the restricted type locality given above.

Tanagra frugilegus Tschudi = Thraupis bonariensis darwinii (Bonaparte).

Archiv für Naturgeschichte, x, (1), 1844, 286 (Peru = prob. fruit gardens of Lima).

Cotype: U. S. Nat. Mus. 41913, unsexed, (male by plumage); Peru (original lavel lost); wing 85, tail 73, culmen from base 14 mm.

Another cotype went to the British Museum (Cat. Birds Brit. Mus., xi, 1886, p. 165).

Cissopis minor Tschudi =

Cissopis leveriana leveriana (Gmelin).

Untersuchungen Fauna Peruana, Aves, 1846, p. 211 (wooded region of Peru; = Chacaybamba?).

Cotype: U. S. Nat. Mus. 41914, unsexed, dismounted bird; Chacaybamba, Peru; 4.8.39 (August 4 or April 8, 1839); wing 112, tail 135, culmen from base 20 mm.

The data as to place and date are on the original field label in what is probably Tschudi's own caligraphy. The other specimens listed in this paper have only the original museum exhibition labels, which this bird has as well, and which merely read —"Perou. Voyage de M. Tschudi."

Hellmayr (Cat. Birds Amer., ix, 1936, 439) states that the type (= another co-

type) is in Neuchatel Museum, but in 1905 he and Berlepsch failed to find it there.

Arremon frontalis Tschudi =

Atlapetes brunnei-nucha brunnei-nucha (Lafresnaye).

Archiv für Naturgeschichte, x, (1), 1844, 289 (Peru = eastern wooded region between 8° and 9° lat. south and Jaen de Bracamoras, Peru).

Cotype: U. S. Nat. Mus. 41911, unsexed bird; original label lost; wing 79, tail 85, culmen from base 21 mm.

Although no type of this bird was found at Neuchatel in 1905 by Berlepsch & Hellmayr, the latter author (Cat. Birds Amer., xi, 1938, p. 413) states that a type is there. We therefore consider the present specimen a cotype.

Included with these types in the consignment from the Neuchatel Museum were four other Tschudi specimens which are not of type status. For the benefit of students wishing to unravel the synonymies of the species involved, they are listed below, together with references to the names under which Tschudi listed them.

Ortygonax rytirhynchus rytirhynchus (Vieillot).

Rallus caesius (not of Spix) Tschudi, Unters. Fauna Peruana, 1844-46, p. 301.

One spec., U. S. Nat. Mus. 41934, (Perou).

Columba plumbea delicata Berlepsch & Stolzmann.

Columba infuscata, Tschudi, Unters. Fauna Peruana, 1844-46, p. 275.

One spec., U. S. Nat. Mus. 41929, (Perou).

Thamuophilus melauochrous Sclater & Salvin.

Thamnophilus luctuosus (not of Lichtenstein) Tschudi, Archiv. für Naturgeschichte, x, (1), 1844, p. 278.

One spec., U. S. Nat. Mus. 41910, (Perou).

Molothrus bonarieusis occideutalis Berlepsch & Stolzmann.

Icterus brevirostris (not of d'Orbigny and Lafresnaye) Tschudi, Archiv. für Naturgeschichte, x, (1), 1844, 292.

One spec., U. S. Nat. Mus. 41909, (Perou).